DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
WASHINGTON, D.C. 20372

IN REPLY REFER TO
BUMEDINST 5450.153
BUMED-3111
17 June 1980

BUMED INSTRUCTION 5450.153

From: Chief, Bureau of Medicine and Surgery
To: Commanding Officer, Naval Biodynamics Laboratory, New Orleans, Louisiana

Subj: Naval Biodynamics Laboratory, New Orleans; mission and functions of

Ref: (a) OPNAVNOTE 5450 Ser 09B26/145706 of 28 Feb 1980 (canc frp: Jun 80)

Encl: (1) Mission and functions of the Naval Biodynamics Laboratory, New Orleans

1. Purpose. To promulgate the functions to be performed by the Naval Biodynamics Laboratory, New Orleans, in support of the mission set forth in reference (a).

2. Status and Command Relationships. The laboratory is a shore (field) activity in an active operating status under a commanding officer, and under the command and support of BUMED exercised through the Commanding Officer, Naval Medical Research and Development Command, Bethesda, MD. The laboratory is subject to the area coordination authority of the Commandant, Eighth Naval District/CNO Area Representative (after 30 September 1980).

3. Action. In accomplishment of the assigned mission, the commanding officer shall perform the functions set forth in enclosure (1). Requests for changes or modifications to the assigned mission or functions shall be submitted to BUMED via the chain of command with a copy to the area coordinator.

W. P. ARENTZEN

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(See next page)

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# MISSION AND FUNCTIONS OF THE NAVAL BIODYNAMICS LABORATORY NEW ORLEANS, LOUISIANA

1. Mission. To be the principal Navy activity to conduct biomedical research on the effects of mechanical forces (motion, vibration, and impact) encountered in ships and aircraft on naval personnel; to establish human tolerance limits for these forces; and to develop preventive and therapeutic methods to protect personnel from the deleterious effects of such forces.

2. Functions. As directed by the Chief, Bureau of Medicine and Surgery:

a. Determine the kinematic, dynamic physiological, and performance effects of mechanical forces (e.g. acceleration, impact, vibrations) on Navy and Marine Corps personnel.

b. Determine the mechanisms underlying the biomedical effects of mechanical forces; develop human tolerance limits and standards for exposure to such forces; and develop and evaluate methods for the prevention and treatment of deleterious effects resulting from these forces.

c. Determine specifications for, and develop, construct and validate a family of anthropomorphic manikins and other human analogues, including mathematical models, that replicate human responses to impact acceleration.

d. Develop a standardized test battery for assessing human performance under a variety of environmental stressors including, but not limited to, mechanical forces.

e. Provide or undertake such other appropriate functions as may be authorized or directed by higher authority.